POLICIES TO PROMOTE LABOR FORCE PARTICIPATION OF OLDER PEOPLE

Alicia H. Munnell

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Center for Retirement Research at Boston College
550 Fulton Hall
140 Commonwealth Ave.
Chestnut Hill, MA 02467
Tel: 617-552-1762 Fax: 617-552-1750
http://www.bc.edu/crr

* Alicia H. Munnell is the Peter F. Drucker Professor of Management Sciences in Boston College's Carroll School of Management and Director of the Center for Retirement Research at Boston College. The author would like to thank Francesca Golub-Sass and Marric Buessing for valuable research assistance. This paper was originally prepared for a conference entitled "Workforce Policies for the Next Decade and Beyond" held at the Urban Institute in Washington, DC on November 11, 2005. The research reported herein was supported by The Atlantic Philanthropies. The opinions and conclusions expressed are solely those of the author and should not be construed as representing the opinions or policy of The Atlantic Philanthropies or the Center for Retirement Research at Boston College.

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140 Commonwealth Ave.
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phone: 617-552-1762 fax: 617-552- 0191
e-mail: crr@bc.edu
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Introduction

That older people will need to work longer in order to ensure a secure retirement is undeniable. Social Security, the backbone of the retirement system, will not replace as much pre-retirement income in the future as it does today. Employer-sponsored pensions also involve considerably more uncertainty given the shift from defined benefit to 401(k) plans. With institutional saving arrangements on the decline, one might have thought that people would be saving more on their own. But personal saving outside of pension plans is virtually non-existent. Combine the retirement income crunch with the dramatic increase in life expectancy, and continued employment in later life appears like a promising option for ensuring the financial security of older Americans. The hard questions are whether older people will offer their services and whether employers will retain or hire them.

On the supply side, despite the need to build up their stock of "retirement wealth," older people may find the availability of Social Security benefits at age 62 too tempting and continue to retire early. And not all older people can work. Some have health problems or have been laid off and unable to find another job, and others see continued employment as simply too onerous. For those who want to work, meaningful jobs may continue to require full–time employment, an arrangement inconsistent with the desires of many older people.

On the demand side, the decline in fertility rates that followed the boom will cause labor supply to grow more slowly than in the past. Slow labor force growth may create a tight labor market overall or in certain locations and sectors, thereby improving the employment prospects of older workers. Offsetting potentially tight labor markets, however, are a number of factors. First, older workers are expensive. They are paid more, sometimes in excess of their productivity. They involve expensive health care costs and rapidly rising pension costs under traditional defined benefit pension plans. Second, employers generally resist part-time employment, which is the preferred mode for many older workers. Third, age discrimination, while technically illegal, probably exists. Thus, it is not clear that the demand for older workers will materialize.

This paper explores the potential supply of and demand for older workers and looks at some proposals to help increase the labor force participation of this group. Section I summarizes today's retirement patterns and argues that pressure on the nation's retirement programs will require older people to work longer. Section II explores impediments to keeping older people in the labor force – namely, the availability of Social Security benefits at 62, the health and employment limitations of some workers, and the potential lack of jobs with enough flexibility. Section III shifts to the employers' side and looks at the potential increase in the demand for labor generally as the ratio of older people to those of working age increases. Employers can respond by adding more capital, tapping immigrants and women, or by outsourcing, but it is not clear that these responses will alleviate the pressure on wages. Another option is to employ more older workers, given that they will be healthier and better educated than in the past and that jobs will be less physically demanding. But older workers also have some disadvantages. The most important, as discussed in Section IV, is the fact that they tend to be expensive. Section V explores some policy proposals to improve both the supply of and demand for older workers. Unfortunately, other than increasing Social Security's Earliest Eligibility Age from 62 to say 64, the realistic options are few. Section VI concludes that keeping older workers in the labor force may well be good for both workers and employers, but it is not obvious that it will happen.

I. Workers: The Need for Continued Employment

The first decision when discussing older workers is to identify the group under consideration. The Age Discrimination in Employment Act protects workers age 40 or older. People can withdraw money without penalty from their 401(k) plans at 59 ½. And people are eligible for unreduced Social Security benefits at age 66. This analysis focuses on those age 55 to 70, because at age 55 the labor force activity of both men and women starts to decline markedly and by age 70 most people should have accumulated enough resources to be able to support themselves comfortably in retirement.

Today both men and women continue to retire early. As shown in Figure 1, labor force participation drops about 15 percentage points between age 50 and 60. By age 60, only 72 percent of men and 56 percent of women are in the labor force.

This decline in labor force participation shows up in a reduction in earnings as a percent of income as the age of the household increases. For those in the middle quintile of the age distribution, earnings accounts for 80 percent of income for households aged 55-61, but declines to 57 percent for those 62-64, 24 percent for those 65-69 and becomes trivial for those over 69 (Table 1). As the table shows, the typical household over aged 69 gets the bulk of its income from Social Security and employer-sponsored pensions. Both these sources will provide less in the future than they do today.

The Outlook for Social Security

Today, the hypothetical "average earner" retiring at 65 currently receives benefits equal to $1,180 per month or about 42 percent of previous earnings. After paying the Medicare Part B premium, which is automatically deducted from Social Security benefits before the check goes in the mail, the replacement rate is 38.7 percent, or $1,090. Under *current law,* Social Security replacement rates – benefits as a percent of pre-retirement earnings – are scheduled to decline at any given retirement age for three reasons. First, the increase in the normal retirement age, from 65 to 67, currently in progress is equivalent to an across-the-board cut. Second, Medicare Part B premiums are slated to increase sharply due to rising health care costs. (Premiums for the new Part D drug benefit will also claim an increasing share of the Social Security check.) Finally, Social Security benefits will be taxed more under the personal income tax, as the exemption amounts are not indexed to inflation. As shown in Table 2, these three factors will reduce the net replacement rate from 38.5 percent today to 29.4 percent in 2030, or $830 in today's terms. Restoring solvency through cuts in benefits would reduce this level of support still further.

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The Outlook for Private Sector Employer-Sponsored Pensions

With a diminished role for Social Security, retirees will be increasingly dependent on employer-sponsored pensions. One problem is that at any moment in time, only about half the private sector work force age 25 to 64 participates in an employer-sponsored plan of any type, and this fraction, which has remained virtually unchanged since the late1970s, is unlikely to improve (Figure 2).[1] Since pension participation tends to increase with

[1] The pension coverage data discussed above apply only to individual workers at any given point in time. Over a lifetime and on a household – rather than an individual – basis, coverage rates are somewhat higher. For households aged 55-64, the 2001 Survey of Consumer Finances shows that approximately 65 percent of households had some sort of pension coverage in 2001. Pension coverage is much more extensive for high-income households.

earnings, it is only middle- and upper-income individuals who can count on receiving meaningful benefits from employer-sponsored pension plans.

The other issue is that the nature of pension coverage has changed dramatically. Twenty years ago, most people with pension coverage had a traditional defined benefit plan that pays a lifetime annuity at retirement.[2] Today the world looks very different. Most people with a pension have a defined contribution plan – typically a 401(k) (Figure 3). In contrast to defined benefit plans, 401(k) plans are like savings accounts. Generally the employee, and often the employer, contributes a specified percentage of earnings into the account. These contributions are invested, usually at the direction of the employee, mostly in mutual funds consisting of stocks and bonds. Upon retirement, the worker generally receives the balance as a lump sum, albeit with the option to roll it over to an IRA.

In theory workers could accumulate substantial pension wealth under 401(k) plans. But *in practice* they do not. For example, simulations suggest that the worker in the middle of the earnings distribution, who contributes regularly throughout his worklife, should end up at retirement with about $300,000 in his 401(k) account and/or Individual Retirement Account (IRA). (Most IRA assets are rolled-over balances from 401(k) plans.) This amount, when combined with Social Security, would provide an adequate retirement income. But reality looks quite different. The Federal Reserve's 2001 Survey of Consumer Finances reports that the typical individual approaching retirement had 401(k)/IRA balances of only $42,000 (Figure 4). Younger cohorts also do not seem to be on track for an adequate retirement income. The average 401(k)/IRA holdings for those 45-54 are only $37,000 compared to a predicted $155,000.

A critical factor explaining these low balances is that the entire burden has shifted from the employer to the employee. In these plans, workers must decide whether or not to join, how much to contribute, how to invest the assets, when to re-balance, what to do about company stock, whether to roll over accumulations when changing jobs, and how to

[2] The annuity might be a dollar amount per month for each year of service, say $50; so workers with 20 years of service would receive $1,000 per month at age 65. The benefit could also be a percentage of final salary for each year of service, say 1.5 percent; so workers with 20 years would receive 30 percent (20 years at 1.5 percent) of final salary for as long as they live. The employer finances these benefits by making pre-tax contributions into a pension fund; holds the assets in trust; directs the investments; and bears the risk. The Pension Benefit Guaranty Corporation (PBGC) insures benefits up to specified limits. The PBGC monthly guarantee limit in 2003 is $3,665 at age 65, and declines to $1,649 at age 55. Employers pay for this insurance with premiums largely determined by the plan's funding status.

withdraw the money at retirement. The evidence indicates that a significant fraction of participants makes serious mistakes at every step along the way. A quarter of those eligible to participate choose not to do so. Over half fail to diversify their investments. Many over-invest in company stock. Almost no participants re-balance their portfolios as they age or in response to market returns. Most importantly, many cash out when they change jobs and very few annuitize at retirement. The basic problem is that financial decisions are difficult. Most participants lack sufficient financial experience, training, or time to figure out what to do.

Personal Saving

Given the projected decline in Social Security and increased uncertainty surrounding employer-sponsored pensions, one might have expected to see those of working age increase their personal saving. But a recent study of the U.S. National Income and Product Accounts (NIPA) personal saving rate revealed that virtually all the saving undertaken by the working-age population occurred in pension plans (Figure 5).[3] In recent years, saving outside of pensions has actually been negative.

Thus, the outlook for retirement income for future cohorts of retirees is dismal. People are not going to be able to continue to retiree at 62 and 63 and maintain their pre-retirement living standards over an increasingly long period of retirement. Working longer is an obvious solution.

The Impact of Working Longer on Retirement Income

Each additional year in the workforce increases income directly through earnings from work and investments. It also actuarially increases Social Security benefits by 5 to 8 percent and reduces the number of years over which retirement savings need to be spread. The financial implications are striking. As shown in Table 3, a couple in the middle of the income distribution could reduce the assets required to replace 80 percent of their after-tax pre-retirement income from $511,000 to $118,000 by delaying their retirement from 62 to 70.

[3] Munnell, Golub-Sass, and Varani (2005).

In summary, Social Security replacement rates are scheduled to decline even under current law, 401(k) plans have made income from employer-sponsored pensions more uncertain, and the working-age population saves virtually nothing on their own. People will not be able to maintain their pre-retirement standards of living if they continue to retire in their early sixties. Delaying retirement is clearly a desirable goal. But is it realistic?

II. Workers: Impediments to Continued Employment

Recent trends in retirement and various survey results provide some encouraging evidence that older workers will stay in the labor force longer. Other pieces of information, however, suggest that people often do not follow through on their good intentions. After reviewing the labor force trends, this section discusses some possible reasons why people continue to withdraw early from the labor force.

Current and Projected Labor Force Trends

The most important development on the retirement front is an apparent pause, if not end, to the pattern of earlier and earlier retirement. The average retirement age can be defined in a number of ways. But for this discussion it is the age at which 50 percent of the age cohort is out of the labor force.[4] For men, the retirement age dropped from 66 in 1965 to 63 in the early 1980s, where it has remained (Figure 6). For women, the pattern is slightly different because of a cohort effect: as the increase in participation rates at younger ages feeds through, the average retirement age of older women has increased. By 2003, the average retirement age for women was 62.

With regard to the future, people say that they plan to work longer. For example, the 2004 EBRI Retirement Confidence survey shows that almost half of today's workers plan to retire at age 65 and older (Table 4), which would imply that the average retirement age in the future will rise to 65 from its current level of 63. Similarly, surveys sponsored by AARP in 1998 and again in 2004 report that 80 percent of baby boomers expect to work in retirement.

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[4] Burtless and Quinn (2002).

However, it is unclear whether these expectations will be realized. Since 1994 the Retirement Confidence Survey has asked individuals when they plan to retire and has asked retirees when they actually retired. An average of the results over the full period shows that the typical worker has expected to work until age 65, and the typical retiree has left the workforce at about age 62 (Figure 7). This finding suggests that individuals often end up retiring earlier than they had initially planned.

Current data also show some discouraging trends, particularly for men in their 50s. Figure 8 depicts the labor force participation rates by age from 1984 through 2004. At older ages, a greater proportion of men were in the labor force in 2004 than in 1984. But at younger ages – that is between 50 and 58 – the labor force participation rate for men is below that of twenty years ago.

One final piece of evidence is the reaction of voters to the proposal to help close the Social Security financing shortfall by raising the age at which one can receive benefits. Regardless of party affiliation, survey respondents overwhelmingly reject the notion of raising the Social Security retirement age (Table 5). Perhaps voters recognize this proposal as a benefit cut and simply oppose all benefit cuts. More likely, however, people resist legislation that sounds like it will keep them in the labor force longer.

Thus, it may be a mistake to take today's workers at their word that they plan to work longer than their predecessors. That is unfortunate, since, as discussed above, people will need to stay in the labor force at older ages to secure an adequate retirement income. A lot of survey respondents talk about work later in life, but many do not follow through. The question is why.

The Availability of Social Security Benefits

Much has been made of the extension of the Normal Retirement Age under Social Security from 65 to 67. Some commentators imply that this change is an important incentive to remain in the labor force.[5] To the extent that an incentive to remain in the labor force exists, it takes the form of a cut in benefits at age 62 from 80 percent of full benefits with a Normal Retirement Age of 65 to 70 percent with a Normal Retirement Age of 67. That is, people retiring at 62 would take a bigger hit for claiming early.

[5] OECD (2004).

The problem is that most researchers have found people to be very sensitive to the availability of benefits and much less sensitive to changes in benefit levels.[6] Despite the reduction in the monthly benefit amount, most people claim benefits at age 62 (Table 6). The impression one gets is that a large number of people are tolerating their jobs just long enough to acquire sufficient income to stop working, and as soon as that income becomes available they grab it. The implication is that as long as the Early Eligibility Age remains at 62, a large percentage of people are likely to claim earlier than they would otherwise and withdraw from the labor force.

Work Limitations

The discussion so far has proceeded as if all workers have the capacity and opportunity to work as long as they want. This is clearly not true. Three pieces of information suggest that somewhere between 30 and 40 percent of workers leave involuntarily. First, the Health and Retirement Study (HRS) asks why people retired. Of those who had retired by age 65, 65 percent said that they retired voluntarily, 18 percent for health reason, 6 percent because their business closed, 7 percent laid off, and 4 percent for family reasons (Table 7). Similarly, a recent survey by Prudential Financial of a nationally representative sample found that 38 percent of retirees claimed they had retired involuntarily. Finally, a recent study, which used the HRS to explore the impact of work on physical and mental health, found that about one third of older workers were employed in positions where the demands of the job were judged excessive or job satisfaction was very low.[7] Many in this group will not view their ultimate retirement as voluntary.

The Lack of Flexible Jobs

Another hurdle to continued employment is that older people consistently report that they want to work part-time. For example, a study based on the Health and Retirement Study reports that 56 percent of respondents aged 55 to 65 in 1996 said they would prefer to gradually reduce their hours as they age.[8] And older self-employed people tend to reduce

[6] Gruber and Coile (2000).
[7] Calvo (2005 forthcoming).
[8] U. S. General Accounting Office (2001).

hours worked as they approach retirement. But few older workers have part-time positions, and part-time employment does not appear to be increasing (Figure 9).

Currently, part-time employment is concentrated in small establishments and in establishments in the service sector.[9] This is true even after controlling for other factors that would affect demand, such as wages, fringe benefits, seasonal fluctuations in demand, and hiring costs. It is not exactly clear why this is the case. Large firms might avoid part-time workers because they tend to have higher turnover rates than full-time employees.[10] Part-time work might be more common in the service sector because it is labor intensive and faces fluctuations in demand, and because employers find it is easier to meet these fluctuations with part-time workers. While all these theories are plausible, they have not been supported by rigorous empirical studies.[11] Without an increase in the availability of part-time employment, however, many older people may be unwilling to keep working.

III. Employers: Potential Demand for Older Workers

The United States, like virtually every other developed country, is about to experience a radical transformation of its labor markets. The ratio of those 65 and over to the working-age population will increase significantly. The ratio increases very rapidly as the baby boom retires between 2010 and 2030 and then rises slowly thereafter reflecting continuing increases in longevity (Figure 10). With a rising ratio of consumers to workers, labor demand is likely to rise relative to labor supply, putting upward pressure on wages.

At the same time, the composition of the labor force will change. As the baby boom ages, those 55 and older will compose a larger share of workers rising from 13 percent in 2000 to about 20 percent by 2030 (Figure 11). Thus, the relative glut of older workers may put downward pressure on their wages relative to their younger counterparts. That is, the same crowding effect that placed downward pressure on the wages of the baby boomers when they were young may follow them into their late 50s and 60s.[12] And the downward pressure may persist as older workers continue to constitute a large share of the

[9] Montgomery (1988).
[10] Tilly (1991).
[11] Hutchens (2001).
[12] Welch (1979); Triest, Sapozhnikov, and Sass (2005).

workforce. Thus, boomers may face two types of wage pressures – downward due to their large cohort and upward due to the slow growth in the labor force.

Possible Employer Responses to the Coming Wage Pressure

In theory, employers could respond to the upward pressure on overall wages by using more capital, by tapping immigrants and women, or by relocating jobs. Each of these options is likely to provide only limited relief, however, suggesting that employers may become more receptive to the continued employment of older workers.

More capital. Employers have an incentive to respond to higher wages by using more equipment and advanced technology to automate their production processes. The problem is that the purchase of capital needs to be financed.[13] And the same demographic trends that lead to the aging of the population are likely to reduce both personal and government saving, leading to an increase in the cost of financing new capital investment. On the personal side, the dissaving by large numbers of retirees as they leave the labor force is likely to swamp the saving undertaken by smaller incoming cohorts. On the government side, the claims of retiring workers on Social Security and Medicare are likely to reduce government saving. With lower levels of personal and government saving, the only way to finance investment is to borrow from abroad. That approach worked in the 1980s. However, the U.S. current account deficit is now so large relative to GDP that further borrowing to offset the projected decline in national saving seems unlikely. As a result, lower national saving is likely to limit the extent to which employers can use capital to alleviate wage pressure.

Tap immigrants and women. An alternative to adding more capital is to increase the labor force by turning to untapped sources, such as immigrants and women. The problem is that immigration is relatively high by historical standards (Figure 12). The United States went from very high immigration rates in the early part of the century, to extremely low rates during the Depression and World War II. After the war, immigration rates increased steadily to a post-war high in 2000. The Census Bureau's middle assumption for net immigration, which underlies its labor force projections, is about 900,000 per year including both legal and those classified as "other-than legal." This level would be in

[13] However, it should be noted that a lower rate of investment will be needed in the future to increase the amount of capital per worker than was true in the past when the labor force was growing at a faster rate.

keeping with the pattern of the 1990s. Higher levels of immigration seem unlikely for the foreseeable future in the wake of September 11, 2001.

Women have contributed enormously to the growth in the labor force over the last 40 years (Figure 13), but a significant increase in their labor force participation seems unlikely. Women born in 1940 and thereafter came into the labor force at ever increasing rates, and they stayed in the labor force at higher levels than those born before them. This pattern came to a halt, however, with those born around 1965, when labor force participation reached a plateau.[14] By the 1990s, the continued increase in female labor force participation reflected the retirement of older women, who had relatively low lifetime participation, and their replacement by younger women with higher labor force activity. The current gap in participation between men and women aged 35-44 has narrowed to 15 percentage points (90.1 percent versus 75.4 percent in 2004), and this discrepancy comes from the significant difference in participation between married men and married women. Given that women remain primarily responsible for the care of the home and children, they are likely to need higher pay and/or substantial improvement in child care facilities to enter the labor force in greater numbers.

Relocate/outsource overseas. Firms might respond to the pressure on wages by relocating overseas or "outsourcing."[15] The growth and advance of the global communications infrastructure and the rise of English as the global language has allowed American companies to look abroad in order to cut costs. Here too, however, the potential may be limited. Most manufacturing now occurs offshore, so further movement must come primarily from the service sector. While the phenomenon has received a lot of attention, the numbers involved are sketchy and tend to suggest that no more than 100,000 jobs per year are outsourced. According to the Bureau of labor Statistics, only 4 percent of the roughly 900,000 layoffs a year (2002-2003) were from overseas relocation.[16] A survey of call-center and software operators in India shows that around 350,000 jobs have been created in India from March of 2000 till March of 2004. Goldman Sachs estimates that there were about 500,000 outsourced jobs from 2000 till 2004. Other surveys show more substantial

[14] Nyce and Schieber (2002).
[15] This discussion is based on the following sources: McKinsey and Company (2003), Mann (2003), Bardhan and Kroll (2003), Schultze (2004), Brainard and Litan (2004), Hilsenrath (2004).
[16] U.S. Bureau of Labor Statistics (2004).

numbers. The most cited report by Forrester Research Inc. claims that over 3.3 million white-collar jobs will be shipped oversees by 2015.[17] The future of outsourcing is clearly uncertain, but if it remains modest it will not alleviate the wage pressure created by an increasing ratio of consumers to workers.

If increased capital, a surge of immigrants, more female workers, and/or relocation do not relieve the pressure on wages, will employers turn to older workers? In many ways, relying more on older workers seems like the logical response to the coming labor force pressure.

Rely More on Older Workers

Tomorrow's older workers will be well educated, they will have a lifetime of experience, they will be healthier than workers in the past, and the jobs employers need filled have become much less physically demanding.

Older workers are well educated. The educational gap between older and younger workers is now a thing of the past. Individuals 65 and over have substantially less education than their younger counterparts (Table 8). But educational levels for men aged 55 to 64, which includes the bulk of the baby boomers, are better than levels for younger men. The picture for women is more complicated, given that the educational attainment of each succeeding cohort surpasses that of earlier cohorts. But even here, the gap between women aged 55 to 64 and younger groups is much less than with women 65 and over. In short, older workers will look much like younger workers in terms of their educational attainment.[18]

Older workers have a lifetime of experience. Older workers have logged a great many years in the labor force and have generally acquired valuable skills in the process. These skills are not just useful to their current employer. Most older workers have a diverse work history and experience with many different employers, as the U.S. workforce is extremely mobile.[19] The median job tenure is about 10 years for workers aged 55 to 64;

[17] McCarthy et. al. (2004).
[18] Recent studies show that the use of computers among workers 50 and over has doubled since the mid 1980s and the entire population, including older workers, has now become familiar with computers, the hallmark of the "new economy" (Friedberg (2001)).
[19] While the workforce in the United States is and has been highly mobile, there is some dispute over whether the mobility of the U.S. workforce has increased in recent decades. See Munnell and Sundén (2004).

fewer than one in five wage and salary workers aged 60 to 64 has more than 25 years of tenure.[20] Today's older workers are generally efficient, versatile, able to display good judgment, and capable of adjusting to workplace changes.

Older people are healthier than in the past. Between 1982 and 1999, the share of those 65 and older with severe disabilities, measured roughly in terms of lack of ability to function independently with ease, declined from 26.2 percent to 19.7 percent (Figure 14).[21] This is a 25 percent cumulative reduction in the disability rate, or 1.7 percent per year. Moreover, the rate of reduction is increasing over time.[22] The dramatic improvement in the health status of those 65 and over suggests that those in their late 50s and early 60s must also be healthier.

The outlook for the future depends on the cause of these health improvements.[23] If they are largely due to public health changes at the beginning of the twentieth century, they will fade over time as people born well after these improvements were instituted enter old age. If the improvements are primarily due to new medical treatments, such as drugs for arthritis or cataract surgery for eye problems, they are likely to persist over time. Similarly, if people are healthier mainly because of behavioral changes, such as a reduction in smoking or fat consumption, or improved education and thus better access to medical care and greater understanding of appropriate behavior, the trend towards continued improvement is likely to persist.

Jobs are less physically demanding. The nature of employment has changed dramatically in the last 20 years. As manufacturing declined, the service sector exploded. This expansion reflects the growth in jobs in places such as universities, hospitals, software developers, and management consulting firms. Even within manufacturing the nature of jobs has changed, as firms have automated or outsourced production and now employ more

[20] Copeland (2003).

[21] Manton and Gu (2001). The conclusion that the health of older workers is improving is a relatively new finding. Demographers who examined the issue in the 1970s concluded that the elderly were increasingly less healthy. But these early conclusions may have been based on less than ideal data that allowed multiple interpretations. A new survey of those 65 and older designed in part to solve these data problems—the National Long-Term Care Survey—was first conducted in 1982 and now challenges this view. It asks detailed questions about disability in a consistent manner over time and now provides almost twenty years of information (Cutler (2001)).

[22] Between 1982 and 1989, disability rates fell by 1.0 percent per year; between 1989 and 1994 by 1.6 percent per year; and between 1994 and 1999 by 2.6 percent per year.

[23] Cutler (2001).

managers, engineers, and technicians.[24] Generally, jobs now involve more knowledge-based activities. Employers looking to fill less physically demanding knowledge-based jobs should be more willing to hire older workers who offer a wealth of skills and experience.

In summary, employers are likely to face wage pressures as the population ages. Using more capital, tapping women and immigrants, and outsourcing may help, but such measures may not restrain labor costs significantly. Increased employment of older workers seems like a natural solution.

IV. Employers: Impediments to Hiring Older Workers

Although increased employment of older workers seems like it would alleviate the problems of workers and employers alike, a number of impediments stand in the way. First, older workers are expensive. Second, employers resist part-time employment, which older workers disproportionately favor. Third, personnel considerations make phased retirement difficult. Finally, age discrimination, while illegal, probably continues to exist at least to some extent.

Older Workers Are Expensive

Older workers are expensive for a number of reasons. First, earnings rise with age, often more than can be justified by productivity.[25] Economists explain this phenomenon in terms of implicit contracts between employers and workers whereby younger workers are underpaid and older workers are overpaid to encourage workers with firm-specific skills to remain with the company.[26] This pattern may be less prevalent than in the past with the onset of tight labor markets and the pressure of global competition. Nevertheless, older workers tend to be paid somewhat more than younger workers on a quality-adjusted basis.[27]

In addition to cash earnings, the cost of fringe benefits – health insurance and pensions – are also high for older workers. Health insurance costs increase for two reasons.

[24] Massachusetts Office of the Governor (2001).
[25] Cross section data on earnings by age typically show a humped shaped pattern, but longitudinal data sets generally show real wages rising at least for men into their sixties (Johnson and Newmark (1996) and Hurd (1996)).
[26] Lazear (1979).
[27] Altonji and Williams (1998).

First, the percentage of workers covered rises with age. In 2003, 82 percent of full-time workers aged 55 to 64 had employer-provided health insurance compared to 74 percent of 25 to 44 year olds and 52 percent of 16 to 24 year olds.[28] Second, the cost of health insurance increases with age. Private health insurance costs for full-time year-round workers are between $1,000 and $1,500 for those aged 20 to 44 compared to almost $2,000 for workers 45 to 54, and to almost $3,000 for workers 55 to 64 (Figure 15). If the employer self-insures, hiring an older worker—all else equal—will drive up health care costs. If the employer purchases insurance from a carrier, hiring older workers will raise the cost of the policy.

In the case of pension costs, the impact of hiring older workers depends on the type of plan provided. With 401(k)s, the employer's contribution is generally a fixed percentage of salary and therefore rises in line with pay increases. If the older worker's salary simply reflects greater productivity, then 401(k) contributions raise no cost issue. To the extent that older workers' salaries are higher because of implicit contracts, the 401(k) contribution adds to the extra expense. On the whole, however, 401(k) plans are not a major factor in the hiring of older workers. Neither are the cash balance plans that some employers have adopted to replace their traditional defined benefit plans.

The real pension issue with regard to older workers arises in traditional defined benefit plans. Figure 16 shows the average accrual rate in a sample of traditional private sector defined benefit plans by age—that is, the increase in the present discounted value of pension benefits as a percent of earnings for each age group. The accrual rate rises sharply from 2.1 percent for those aged 26-30 to 12.0 percent for those aged 51-55.[29] Defined benefit plans also make *hiring* older workers costly.[30]

[28]Employee Benefits Research Institute (2005).

[29] The reason for this increase is the multiplier effect inherent in the traditional defined benefit formula. Assume that the formula provides 1.5 percent of final salary for each year of service and a 54-year-old with 20 years of service works for another year. That worker's replacement rate will increase from 30 to 31.5 percent. In addition, the entire 31.5 percent will apply to salary earned in that 21st year of service, increasing the value of all the previously earned pension credits. For this reason, defined benefit pension accruals rise much faster than salary, making the retention of older workers very expensive.

[30] Suppose the plan provides 1.5 percent of final salary and that the employee earns $35,000 during the first year of employment. Both the older and younger worker will be entitled to benefits of $525 per year (1.5 percent of $35,000) when they retire. The older worker, however, can retire in five years at age 60, while the younger worker has to wait 35 years. That means in terms of calculating the present value of the accrued pension benefit at age 60, the $525 for the older worker is discounted by 5 years while the $525 for the younger worker is discounted by 35 years. The fewer years of discounting means a much larger required

Several other items make older workers more expensive to retain or hire.[31] One is paid leave. Both vacation days and sick leave tend to increase with tenure, so older workers are generally entitled to more days off than younger ones. The second is life insurance costs. Many employers provide term life insurance for their employees, and the cost of these policies is directly related to the age of the workforce. Finally, the cost associated with work injury and disability tends to be higher for older workers.

In short, the current compensation structure tends to make older workers expensive. To the extent that they are more productive because they have spent years on the job, some of the disadvantage to retaining older workers disappears. But for workers in jobs that require little training, the cost disadvantage of older workers is a serious problem.

Employers Resist Part-Time Employment

Today, two part-time people are more expensive than one full timer, because a number of costs, such as supervising and record keeping, hiring and training new workers, and fringe benefits like health insurance, are unrelated to hours worked. In the future, the price of part-time workers could decline if large numbers of older workers were willing to accept lower wages in order to attain a part-time slot. Economists do not have a good idea, however, how much compensation would have to decrease relative to full-time workers to spur demand. That is, it is unclear whether part-time compensation would have to fall by 5 percent or even 20 percent relative to full-time to persuade employers to hire more part-time workers.[32]

Personnel considerations also may help explain why employers resist having workers move from full-time to part-time work. For instance, it is difficult to think how a manager could function effectively coming in three days a week. Similarly, activities requiring team work would not lend themselves to one person working part-time. Yet, in some cases employers clearly find a continuing part-time relationship advantageous. When they do, they generally rehire retired employees on a part-time or temporary basis or hire

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contribution to the pension plan for the older worker, making the hiring of older workers in firms with traditional defined benefit plans very expensive.

[31] Committee for Economic Development (1999).

[32] Hutchens (2001).

retirees as contractors.[33] The rehiring approach allows employers to pick and choose those older workers with whom they would like a continuing relationship. (In the past, having employees separate from the firm was the only way employees could both continue working and claim defined benefit pension benefits before the normal retirement age. New Treasury proposals will make separation unnecessary in the future, so it will become clearer the extent to which the pattern is driven by personnel considerations or pension rules.)

In short, older workers consistently report that they would like to reduce their hours as they age, and this preference is clearly evident in the behavior of the self employed, who cut back gradually as they approach retirement. But employers outside of the service sector and small firms appear reluctant to hire part-time workers.

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Age Discrimination

Age discrimination is one barrier that should have been removed with the passage of the Age Discrimination in Employment Act (ADEA). But evidence suggests that age discrimination still exists, at least to some extent, and it may shape workplace culture affecting retention and hiring decisions. Secondary effects are also likely, since workers' perceptions of employers' practices are likely to influence their workforce decisions.

One problem in gauging the importance of age discrimination is the lack of definitive measures. Unlike other types of discrimination, age discrimination is very difficult to detect. Studies on race and gender discrimination proceed on the assumption that, all else equal, minorities and women are as productive as white and male workers, respectively. Any remaining differences in earnings can therefore be attributed to discrimination. This approach is not suitable to age discrimination since the very process of aging affects productivity, both positively and negatively. Furthermore, as noted earlier, firms may have legitimate concerns about the cost of employing older workers.

Because of the difficulty of testing for discrimination with conventional techniques, researchers rely primarily on self-reported information. The findings suggest that managers value older workers. Managers indicate that older workers often work harder and are more reliable and motivated than their younger counterparts. They also state that older workers

[33] Brown and Schieber (2003).

display good judgment, quality control, and attendance, and have lower turnover.[34] On the other hand, employers express concern that older workers are less willing to adapt to changing technologies or workplace practices and are more likely to have difficulty learning new skills.

These negative perceptions of older workers appear to be reflected in hiring and training decisions. In one study, resumes for an older and younger worker with equal qualifications were mailed to nearly 800 firms in the United States. When a position appeared vacant, the older worker received a less favorable response about 25 percent of the time (Figure 17).[35] Another study looked at employers' reactions in Massachusetts and Florida to resumes submitted in response to help wanted ads and found younger workers were 40 percent more likely to be called for an interview than older workers.[36] Other studies explored the likelihood of older workers receiving training. One based on a nationally-representative sample of nearly 1,500 employers with 50 or more employees found that about 70 percent of employees in general received formal training in the previous year, compared to only about 50 percent of employees aged 55 years and older. Of those who were trained, older employees also had many fewer hours of training compared to employees aged 25 to 54 (Figure 18).[37]

Beyond the direct effects of age discrimination by employers on recruitment and training, age discrimination creates an additional, more subtle, barrier to work through the perceptions of older workers. According to data from the HRS, between 10 and 20 percent of older workers indicate that younger workers are given preference over older workers and that their employers exert pressure on them to retire. This perception of discrimination on the part of workers significantly increases the likelihood that the older worker will leave his job and the workforce.

V. Policies to Promote Greater Labor Force Participation of the Elderly

[34] Sterns and McDaniel (1994).
[35] Bendick, Jackson, and Romero (1996).
[36] Lahey (2005).
[37] Frazis, Gittleman, Horrigan, and Joyce (1998).

In order for greater numbers of older people to remain in the workforce, they must be willing to participate – that is, they must be willing to *supply* their labor – and employers must be willing to hire them – that is, employers must *demand* their labor.

Changes to Date

Several important changes have occurred in the last twenty years that changed employer attitudes toward older workers or alleviated disincentives to work on the part of older workers – the elimination of mandatory retirement, the shift from defined benefit to defined contribution plans, and changes in Social Security.

On the employers' side, a major intervention to affect employer behavior has been Amendments to the ADEA that outlawed mandatory retirement before age 70 in 1978 and effectively abolished it altogether in 1986. A study of the retirement patterns in educational institutions in the wake of the elimination of mandatory retirement found that retirement rates fell by two-thirds for faculty who had reached the former mandatory retirement age.[38] With regard to the *hiring* of older workers, the evidence about the antidiscrimination thrust of the legislation is somewhat murkier. Some critics charge that the legislation may have made employers less willing to hire older workers for fear of being sued.[39] Nevertheless, on balance the legislation has probably eliminated an obstacle to continued employment.

The changes that have incurred in the structure of employer-sponsored plans have also reduced incentives to retire early. Provisions in many traditional defined benefit plans offer a significant subsidy for early retirement, while 401(k) plans are neutral with respect to retirement age. The subsidy arises because companies offer benefits at an early retirement age, such as 55, that are not adjusted sufficiently to reflect the fact that retirees will receive benefits for 10 years longer than if they retired at age 65.[40] The subsidy implicit in the less-than-actuarially fair reduction then gradually declines and disappears

[38] Ashenfelter and Card (2002).
[39] Posner (1995).
[40] For example, suppose a person will live for 20 years and is entitled to a pension of $15,000 at age 65; lifetime benefits will equal $300,000 (20 x $15,000). To keep lifetime benefits constant, if that employee retired at 55 his annual benefit should be only $10,000 per year (30 x $10,000 = $300,000). But traditional defined benefit plans typically provide far more because they use an actuarial reduction that is smaller than the full reduction. That is, they pay, say, $12,000 at age 55, which means that the worker in this example who retires at 55 would receive substantially more in lifetime pension benefits than if he were to retire at 65. The exercise is actually somewhat more complicated because the employee adds to his pension if he continues to work.

entirely at the normal retirement age.[41] This pattern produces a strong incentive to retire early. In contrast, 401(k) plans work like savings accounts and contain no incentives to retire at any particular age. A series of studies have documented that workers covered by 401(k) plans retire a year or two later on average than similarly situated workers covered by a defined benefit plan.[42]

On the defined benefit side, the Internal Revenue Service has issued proposals to improve the possibility of phased retirement. Formerly, employees covered by a defined benefit plan could not receive any pension benefits as they moved to part-time employment until they had reached the plan's normal retirement age.[43] A plan that paid such benefits could lose its tax-qualified status, since it was permitted to pay benefits only in the event of death, disability, termination of employment, or at the normal retirement age. To the extent that workers who reduce their hours need to supplement their earnings with pension benefits, the previous regulations made continued employment with the same firm difficult. In November 2004, the Internal Revenue Service issued a proposal that would allow employers to pay a *pro rata* share of the employee's benefits before the normal retirement age, assuming the employee cut his hours by 20 percent or more. The proposal was generally well received, and final regulations are expected shortly.

Finally, several changes to the Social Security program have made it more age neutral with respect to retirement. The first pertains to the earnings test. Since Social Security was insurance against loss of income due to retirement, the government imposed an earnings test. But the earnings test encouraged people to retire early, because it seemed like a tax. Most beneficiaries were unaware that the reduction in benefits while working triggered an increase in benefits later. In recent years, Congress increased the exempt

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[41] Often working beyond the normal retirement age results in negative pension accruals. The law requires that the wage increases of those who work beyond the normal retirement age be reflected in higher retirement benefits. But it does not prevent firms from capping the years of service used to calculate benefits; nor does it require firms to provide actuarial adjustments for the fact that participants will receive benefits for fewer years (McGill et. al. (1996)).

[42] Munnell, Jivan, and Cahill (2003); Friedberg and Webb (2000).

[43] Participants in 401(k) plans who reach age 59 ½ can continue to work for their employer and receive distributions from their account. Before age 59 ½, any distribution—in service or not—is subject to a 10-percent excise tax in addition to ordinary income taxes. The law provides two exceptions. First, distributions may begin as early as 55 if the employee separates from his employer under an early retirement plan. Second, if benefits are paid as a lifelong annuity, they can begin at any age. Thus, these plans do not preclude part-time work and pension receipt.

amount for all beneficiaries subject to the earnings test. And, for pensioners between the Normal Retirement Age and 69, it first reduced the benefit loss for each dollar earned over that exempt amount (from 50 to 33 cents) and then eliminated the test altogether beginning in 2000.

Congress also increased the reward that workers receive for delaying initial benefit receipt past the Normal Retirement Age. When this formula change is fully implemented, for workers attaining age 62 after 2004, the adjustment for delayed benefit receipt will be much closer to actuarially fair, or age-neutral. This means that, for a worker with average life expectancy, lifetime Social Security benefits will be about the same regardless of whether the pension begins at age 62, age 65, or age 70. Thus, the incentives to retire early have been substantially reduced.

Proposals to Increase the Supply of Older Workers

One powerful way to encourage later withdrawal from the labor force is to change the age at which people first qualify for Social Security benefits. As discussed earlier, Social Security's Earliest Eligibility Age (EEA) allows workers to claim reduced benefits as early as age 62. And the vast majority of both men and women jump at this option. Many people find work onerous and seize retirement benefits as soon as they become available.

The problem with claiming early is that the monthly benefit is actuarially reduced.[44] And the reduction is scheduled to increase from 20 percent to 30 percent as the Normal Retirement Age moves from 65 to 67 (Table 9).[45] The reduction in monthly benefits can have a profound impact as retirees age, since the elderly tend to spend down their other retirement assets and rely increasingly on Social Security. In essence, as life expectancies lengthen, keeping the EEA at 62 shifts more Social Security benefits toward "middle age."[46] Raising the EEA to, say, 64 – in step with the two year increase in the Normal Retirement Age – would counteract this shortsightedness and prevent incomes from falling to inadequately low levels.

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[44] Benefits are reduced by 5/9th of one percent for each month they are received prior to the Normal Retirement Age up to 36 months and 5/12th of one percent for each month thereafter. This is equivalent to a 6.67 percent reduction for the first three years prior to the Normal Retirement Age and five percent thereafter.
[45] The increase began with individuals born in 1938, for whom the NRA is 65 plus 2 months, and increases 2 months per year until it reaches age 66. Then, after a 12-year hiatus, the NRA again increases by 2 months per year until it reaches age 67 for individuals born in 1960 or later.
[46] Steuerle and Spiro (1999).

More importantly for the purpose of this analysis, raising the EEA is likely to encourage people to work longer. Currently, retirement rates, as measured by the percent decrease in participation rates, spike sharply at age 62 for both men and women (Figure 19). Increasing labor force participation among those in their early sixties is possibly the best solution to keeping people in the labor force longer.

Not everyone is convinced, however, that raising the EEA is such a good idea. Opponents claim that many individuals can neither work longer nor save more for retirement. Raising the EEA could impoverish these groups as well as strain social programs like Disability Income and Supplemental Security Income that would likely end up serving more people. Finally, they contend that withholding benefits until a later age hurts those with shorter life expectancies, and shifts more retirement wealth to those with longer lives.

Both criticisms have some merit, but need to be put in perspective. First, four studies have found the majority of workers who claim benefits early have significant non-Social Security income.[47] This suggests that, if the EEA were raised, they could use their own assets during ages 62 and 63. Among those without alternative income sources, many could remain at work beyond age 62. Nevertheless, a sizable minority – about 10 percent of early claimers, or 4 percent of all those aged 62 – is in poor health and does not have a source of income, other than Social Security. This group would need assistance between age 62 and 64 either through the Disability Insurance or Supplemental Security Income program. Even these individuals, however, would be better off in the long run because they would receive higher monthly Social Security benefits. On the other hand, it may be too cavalier to say that anyone capable of work can work, since recent studies suggest that continued work might be a real hardship for some individuals.

Withholding Social Security benefits until age 64 would hurt those with shorter life expectancies, and these people tend to be African Americans – particularly males. Such knowledge of an inequitable outcome across different groups makes it difficult to enact legislation to increase the EEA. However, the impact is relatively small – 2 to 3 percent of lifetime Social Security benefits – and should be considered in the context of the entire Social Security program. Many of those who would be hurt by a higher EEA tend to have

[47] Burkhauser, Couch, and Phillips (1996); CBO (1999); Panis et. al. (2002), and Munnell and Sundén (2004).

lower earnings. As such, they gain from the progressivity of the Social Security benefit formula, which awards proportionately greater benefits to low earners.

Thus, despite the obvious negatives, raising the EEA may well be a desirable policy. But it is a hard sell politically. It does nothing to eliminate Social Security's long-term financing gap and would probably require greater current outlays by other programs. The best that could be said on the financing side is that it may pave the way for future increases in the Normal Retirement Age, which does improve solvency. Raising the EEA thus is probably a realistic option only as part of a package of other changes that restore financial balance and maintain equity in the Social Security program

Proposals to Increase the Demand for Older Workers

The only real way to increase employer demand for older workers is to reduce their cost. The most common proposal is to eliminate the requirement for those 65 and over that Medicare serve as the secondary payer. That is, workers would be covered by Medicare rather than their employer's plan, relieving companies of a substantial expense. In the short run, this change would only cost 1.5 percent of Medicare spending since so few people work past 65, but, to the extent the change was successful, costs would rise and further burden a program already facing enormous long-term deficits.[48] At this time, unfortunately, such a proposal is fanciful given that the program already faces enormous long-term deficits and medical costs are growing at unprecedented rates.[49]

A more modest, yet slightly more realistic, proposal is to exempt older workers from the Social Security payroll tax once they reach the Earliest Eligibility Age. This change would cost money at a time that Social Security also faces a long-term deficit. But the amounts are probably relatively small.

The other way to make older workers attractive is to improve their skills so that employers get better value for the wage. Most studies looking at the prospects for older workers conclude with extensive recommendations about expanding training programs.[50] As desirable as training might be, it seems unlikely to be the answer in the United States.

[48] Committee on Ways and Means, U.S. House of Representatives (2000).
[49] Penner, Perun, and Steuerle (2002); Committee on Ways and Means, U.S. House of Representatives (2000).
[50] For example, see OECD (2004).

A recent study by the United Nations of 20 European and North American countries revealed that the United States spent less (as a percent of GDP) than any other country on these programs (Figure 20).[51] A major initiative in this area seems unlikely.

VI. Conclusion

Current sources of retirement income will likely be inadequate for low- and middle-income individuals. The Social Security program will be significantly less generous in the future than it is today, and employer-sponsored pensions, where coverage has moved from traditional plans to 401(k)s, will provide less reliable retirement income. Because of these impending shortcomings in traditional sources of retirement income, people will need employment later in life to ensure adequate retirement income.

The same demographic shifts that will cause Social Security to be less generous may put employers in a tight situation as well. They will no longer be able to rely on a rapidly growing group of younger workers in the future. So how will employers respond to a stagnating supply of labor in the face of a major increase in those 65 and over? They will expand their use of women, immigrants, and capital, and some firms may relocate. But these responses may not be enough to make up for the slow growth in the labor force. Older workers are well educated and healthier than in the past and have a lifetime of experience.

Although the stage appears set for hiring older workers, a number of impediments exist. First, older workers are expensive. They are paid more, sometimes in excess of their greater productivity. They involve expensive health care costs and rapidly rising pension costs under traditional defined benefit plans. Second, most existing employment policies have been geared to encouraging early retirement. Incentives to retire early rather than later are the hallmark of traditional defined benefit plans. Although these plans are significantly less important in the private sector than they were 20 years ago, they are still the dominant plan for states and localities. Third, employers resist part-time employment, which is the preferred mode for older workers, and it is unclear that employer preferences will change in the future. Finally, age discrimination, while technically illegal, probably exists.

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[51] United Nations Economic Commission for Europe (2003).

In sum, increased employment of older workers may well be in the interest of both workers and employers. But mutual interest is not enough. And no silver bullets exist to solve the problem. The United States has already eliminated mandatory retirement and most of the incentives to retire early in its private and public pension programs. The only remaining option to increase the supply of older workers is to deny them Social Security benefits until, say, 64. In terms of making older workers more attractive, exempting them from payroll taxes would help somewhat. But the usual proposals to make Medicare the primary payer and increase training are simply not realistic at this point. Progress in terms of continued employment of older workers, to the extent that it occurs, will result from a myriad of small efforts on the part of both employees and employers to be more flexible in their requirements.

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Table 1. *Percent of Income by Source, Households Aged 55 and Older, Middle Quintile 2004*

Source	Age of household head					
	55-61	62-64	65-69	70-74	75-79	80 and older
Earnings	80.3	56.9	23.5	9.0	4.1	1.0
Retirement benefits						
Social Security	3.5	17.6	48.4	66.4	70.9	79.6
Railroad Retirement	0.3	0.6	0.3	0.4	0.3	0.2
Government pensions	3.9	6.8	6.5	5.3	5.4	4.2
Private pensions	4.7	9.7	12.1	9.6	9.5	7.2
Income from assets	3.4	4.6	5.3	6.1	6.5	5.5
Public assistance	0.4	0.6	0.7	0.5	0.7	0.5
Other	3.5	3.2	3.2	2.6	2.6	1.9

Source: U.S. Bureau of Labor Statistics and U.S. Census Bureau (2005) and author’s calculations.

Table 2. *Social Security Replacement Rates for Average Earner Retiring at Age 65, 2005 and 2030*

Provision	Replacement Rate
2005	
Reported Replacement Rate	42.2
After Medicare Part B deduction	38.5
2030	
Replacement Rate after extension of Normal Retirement Age	36.3
After deduction for Medicare Part B	32.1
After personal income taxation	29.4

Source: Munnell (2003) and author's updates.

Table 3. *How Retirement Age Affects Assets Needed in Retirement, Married Couple Earning $58,560 after Taxes (in 2004 dollars)*

Retirement age	*Annual Social Security payments*[a]	*Additional retirement income needed to achieve 80 percent of after-tax pre-retirement Income ($46,848)*	*Assets needed at retirement to produce that additional income*[b]
62	20,888	26,270	510,757
66	27,648	19,200	298,380
70	38,136	8,712	117,651

Source: Congressional Budget Office (2004).

a. Taken from the Social Security Administration's "Social Security Quick Calculator" (available at www.ssa.gov/OACT/quickcalc/calculator.html).
b. The figures are based on the cost of an annuity through the Federal Thrift Savings Plan

Table 4. *2004 Retirement Confidence Survey; Planned and Actual Retirement Ages*

Retirement age	Percent at each age	
	Planned (Workers)	Actual (Retirees)
54 or younger	5	9
55-59	11	17
60-61	9	6
62-64	12	29
65	26	15
66 and older	22	13
Never retire/ Did not expect to retire	6	3

Source: Employee Benefit Research Institute (2004).

Table 5. *Response to Proposal to Increase the Social Security's Retirement Age*

Response	Total	Republican	Democrat	Independent
Favor	19	30	16	15
Oppose	77	67	81	81
Don't know/NA	4	3	3	4

Source: CBS News/New York Times (2005).

Table 6. *Percent Distribution of Initial Social Security Benefit Awards, 2003*

Age	Women	Men
62	58.6	53.3
63	7.3	7.9
64	11.6	13.1
65	16.5	22.4
66-69	3.0	2.3
70 and over	2.9	1.0
Total	100.0	100.0

Source: U.S. Social Security Administration (2005a) and author's calculations.

Table 7. *Of Those Retired by Age 65, Reason for Retiring*

Reason	Percent
Retired voluntarily	65.2
Poor health	18.0
Laid off	7.3
Business closed	5.7
Family reasons	3.7

Source: University of Michigan (1992-2002) and author’s calculations.

Table 8. *Percent of U.S. Population with a Bachelors Degree or More, 2004*

Age	*Men*	*Women*
25-34	27.43	33.13
35-44	28.99	30.80
45-54	30.59	28.58
55-64	**32.48**	**24.83**
65 and over	24.81	14.30

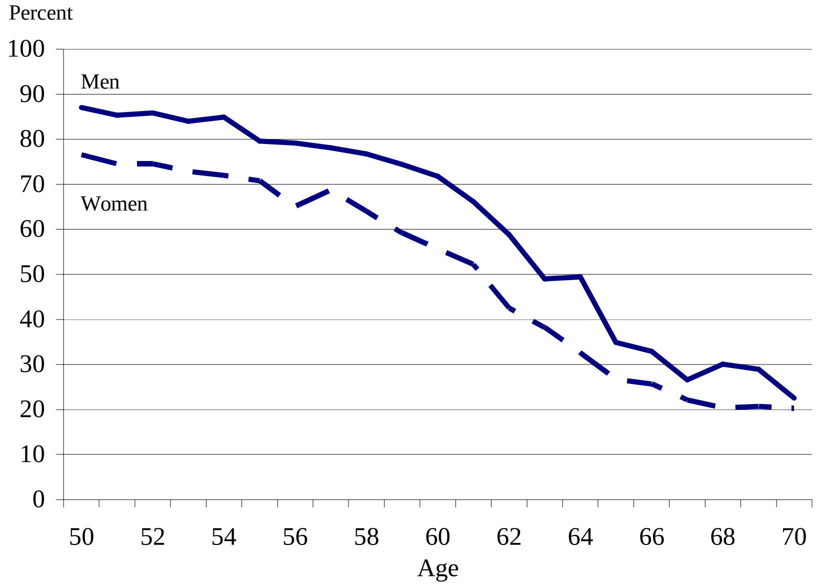
Source: U.S. Bureau of Labor Statistics and U.S. Census Bureau (2005) and author's calculations.

Table 9. *Benefits as a Percent of the Worker's PIA*

Full Retirement Age	Workers Retiring at			
	62	65	67	70
65 in 2002	80.0	100.0	113.0	125.0
66 in 2009-2020	75.0	93.8	108.0	132.0
67 in 2027	70.0	88.0	100.0	124.0

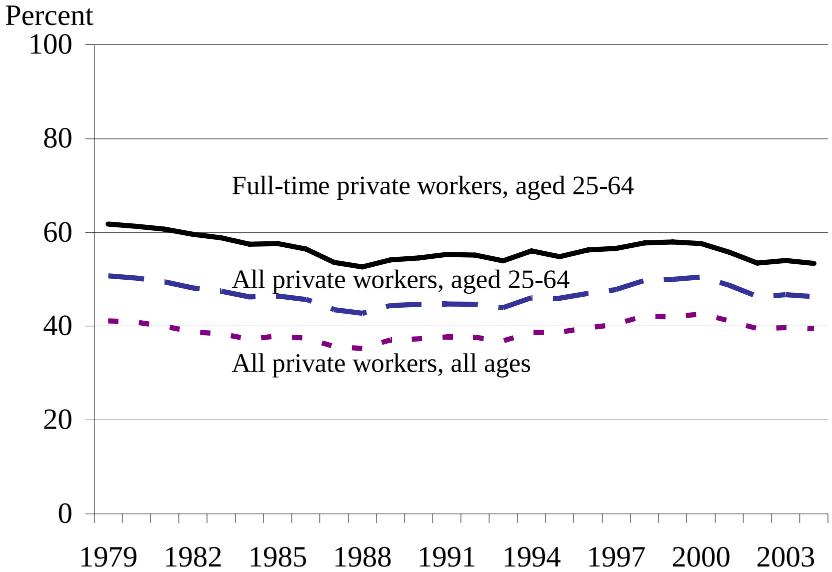
Source: U.S. Social Security Administration (2005b) and author's calculations.

Figure 1. *Labor Force Participation by Age and Gender, 2004*



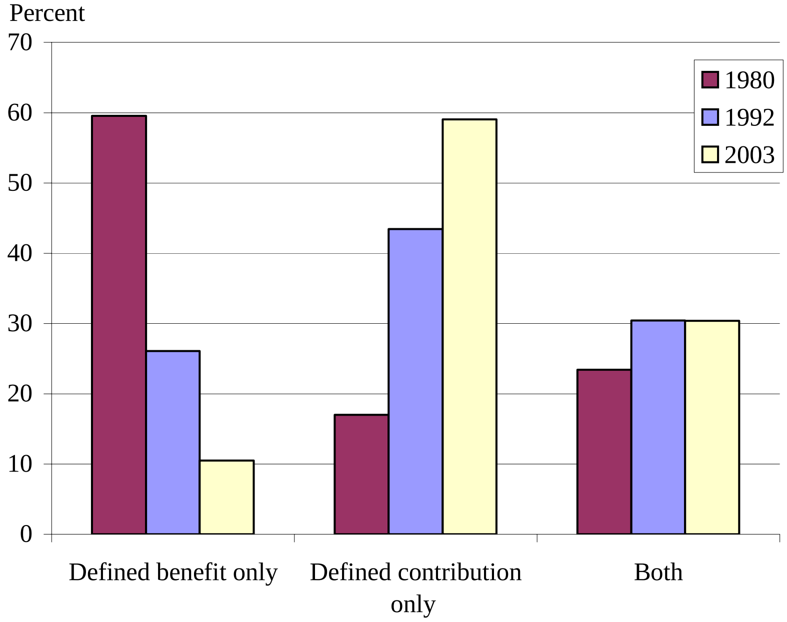
Source: U.S. Bureau of Labor Statistics and U.S. Census Bureau (2005).

Figure 2. *Percent of the Private Workforce Participating in a Pension, 1979-2004*



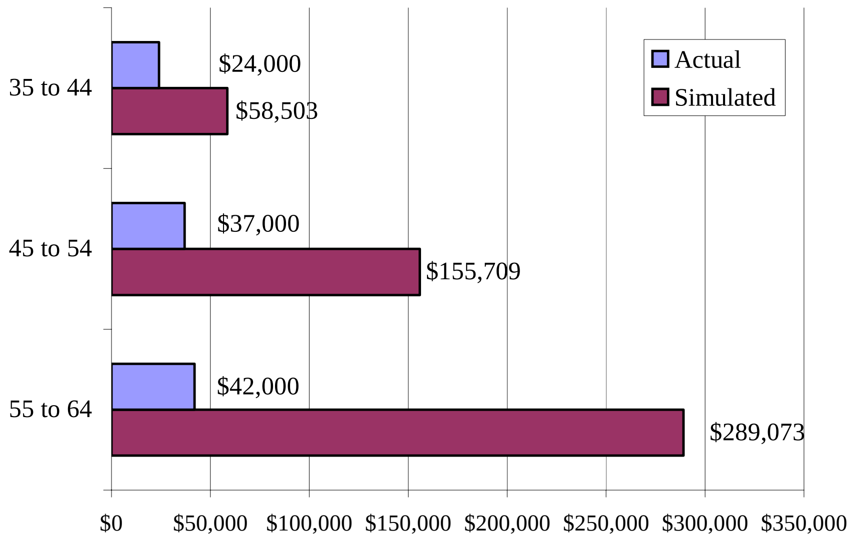
Source: U.S. Bureau of Labor Statistics and U.S. Census Bureau (1980-2005) and author's calculations.

Figure 3. *Percent of Private Sector Wage and Salary Workers with Pension Coverage by Type of Plan from Form 5500, 1980-2003*



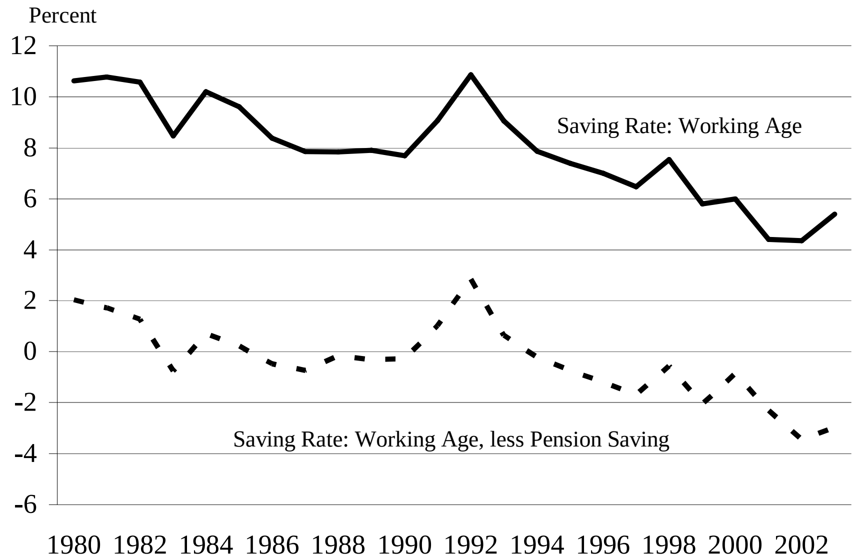
Source: Department of Labor (2004) and authors' calculations.

Figure 4. *401(k)/IRA Actual and Simulated Accumulations, by Age Group, 2001*



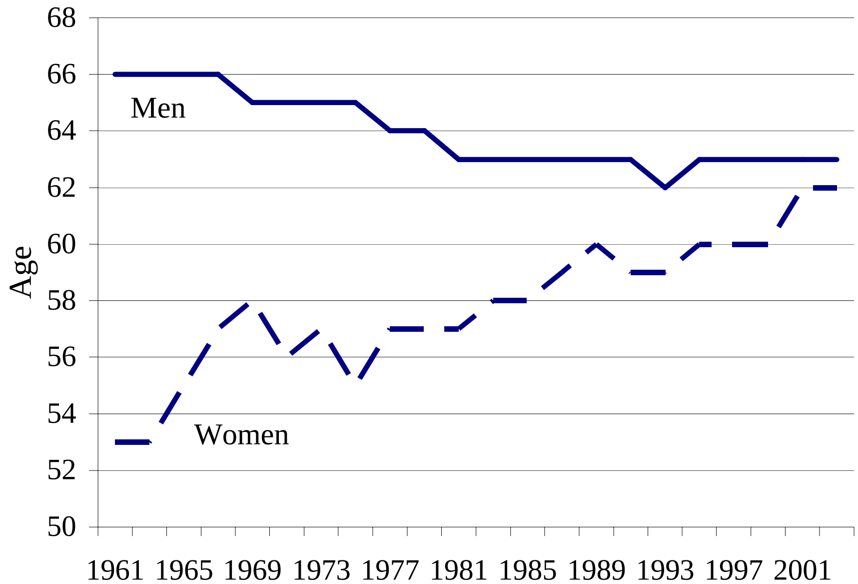
Source: Munnell and Sundén (2004).

Figure 5. *NIPA Personal Saving Rate: Working-Age Population with and without Pensions, 1980-2003*



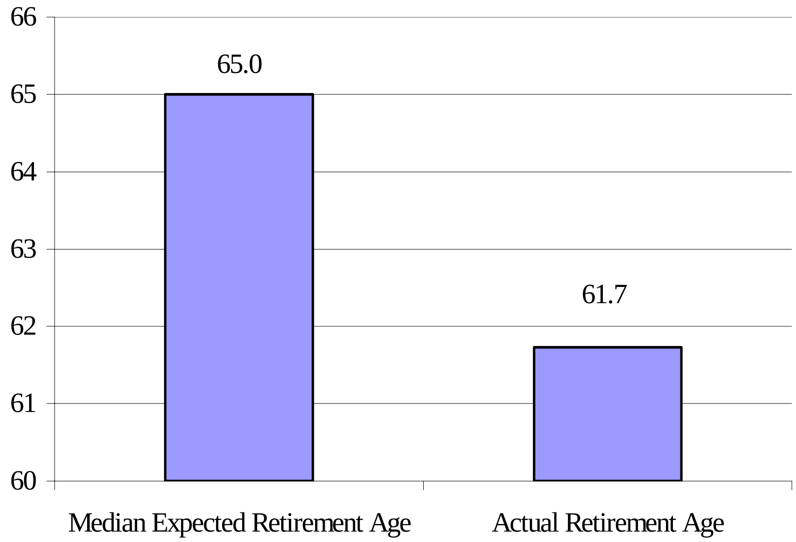
Source: Munnell, Golub-Sass, and Varani (2005).

Figure 6. *Average Retirement Age*[a]*, by Age and Gender, 1961-2004*



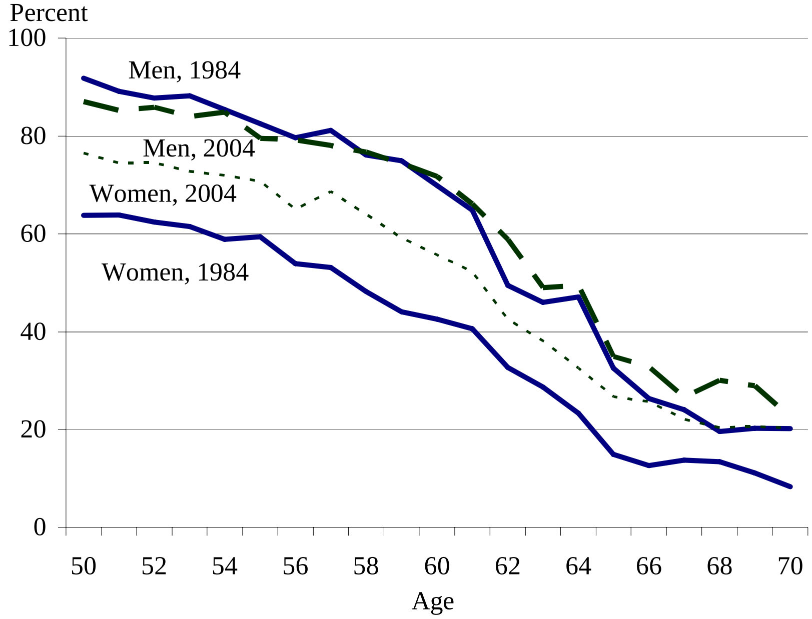
Source: U.S. Bureau of Labor Statistics and U.S. Census Bureau (1962-2005) and author's calculations.
a. Retirement is defined as the age at which more than 50 percent of the cohort is out of the labor force as in Burtless and Quinn (2002).

Figure 7. *1994-2004 Average for Median Expected Retirement Age of Current Workers and Median Actual Retirement Age of Retirees*



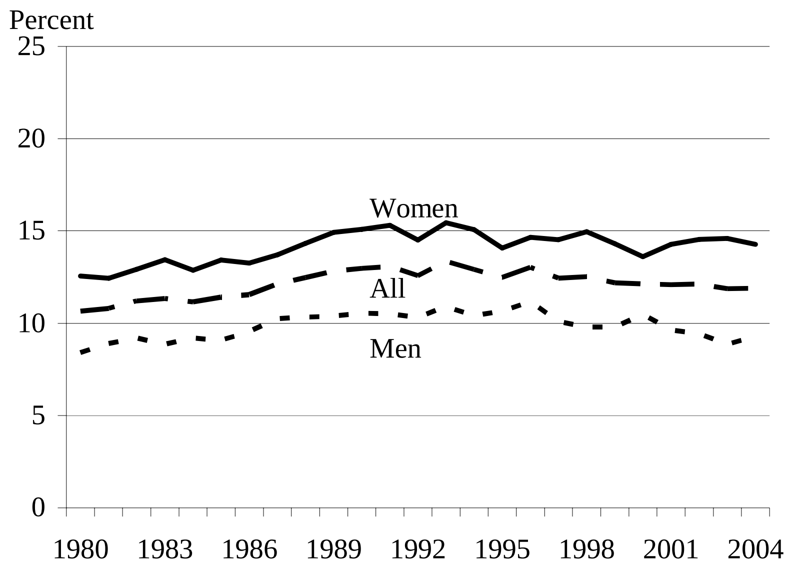
Source: Employee Benefit Research Institute (1994-2004).

Figure 8. *Labor Force Participation by Age and Gender, 1984 and 2004*



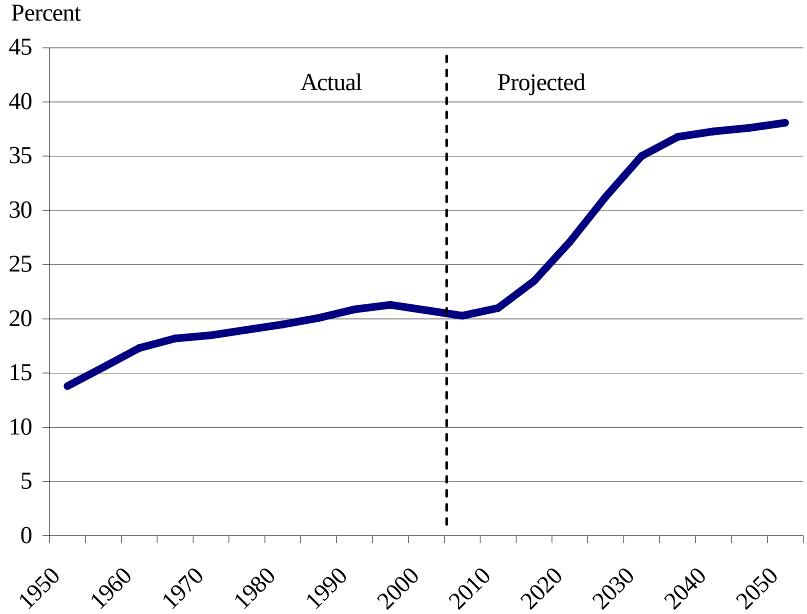
Source: U.S. Bureau of Labor Statistics and U.S. Census Bureau (1985 and 2005).

Figure 9. *Percent of Workers Age 55-70 Employed Part Time, 1980-2004*



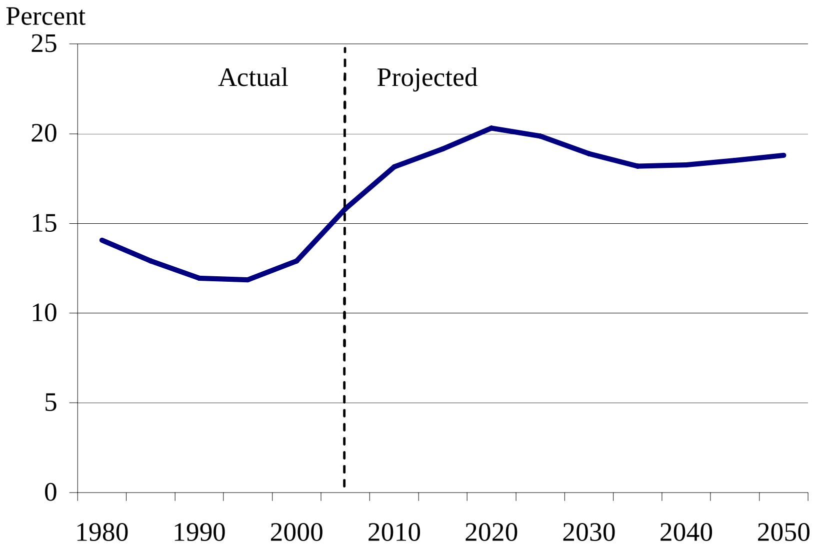
Source: U.S. Bureau of Labor Statistics and U.S. Census Bureau (1981-2005).

Figure 10. *Population of the United States 65 and above as a Percent of Population 20-64, 1950-2050*



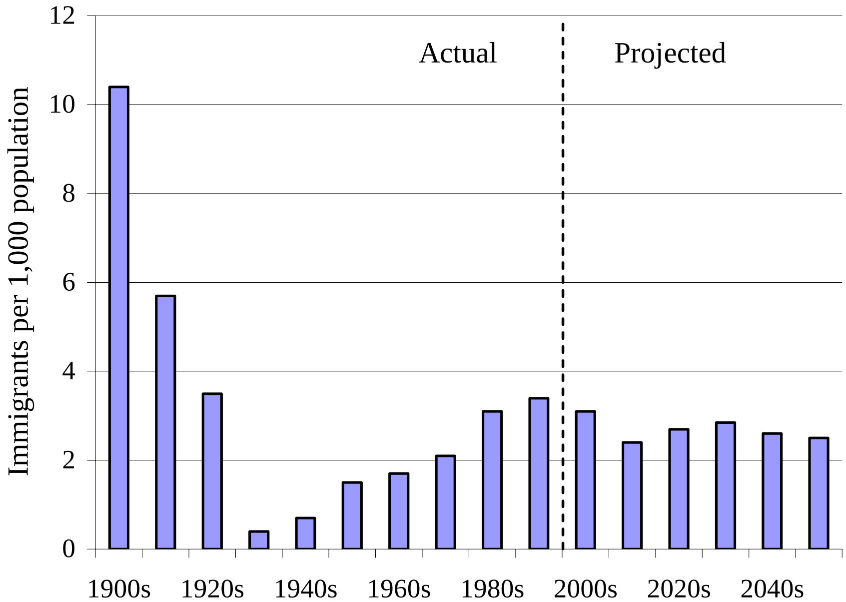
Source: U.S. Social Security Administration (2005b).

Figure 11. *Percent of the Labor Force Aged 55 and Older, 1980-2050*



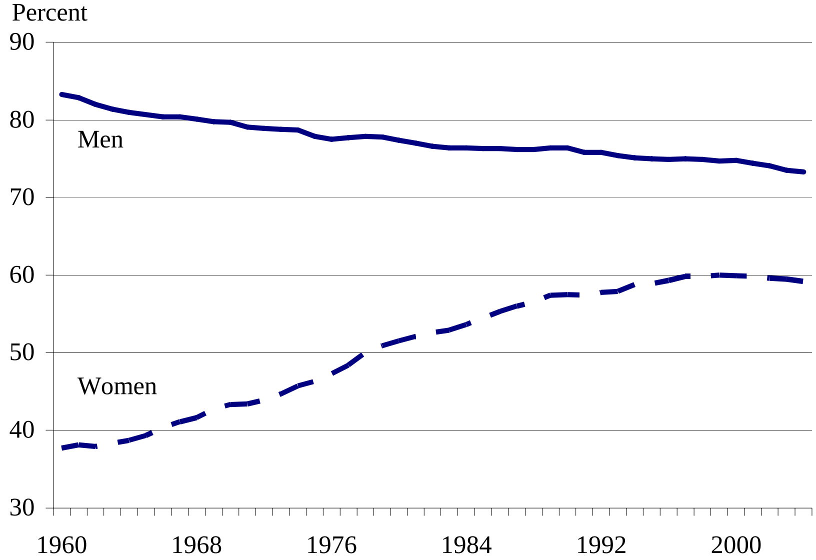
Source: U.S. Department of Labor (2005).

Figure 12. *Immigration to the United States, 1900s-2050s*



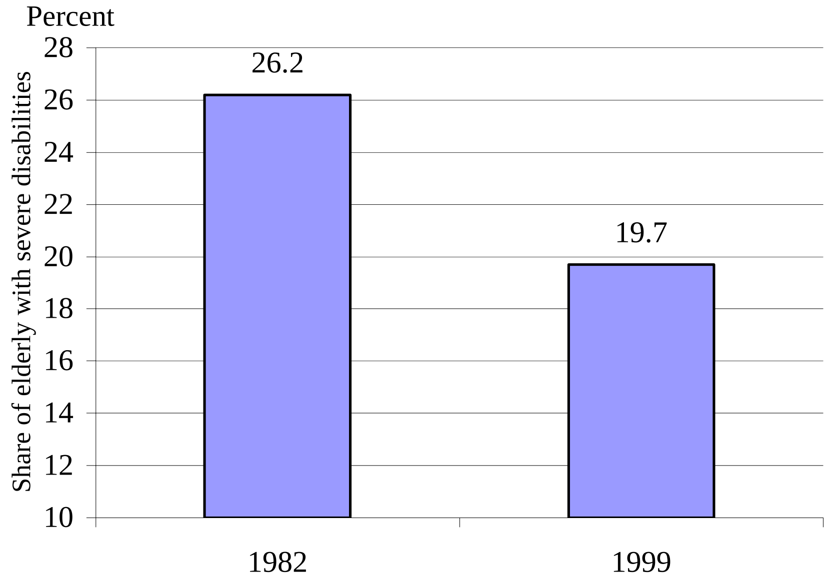
Sources: U.S. Census Bureau (2001 and 2005) and author's calculations.

Figure 13. *Labor Force Participation Rates for Men and Women, 1960-2004*



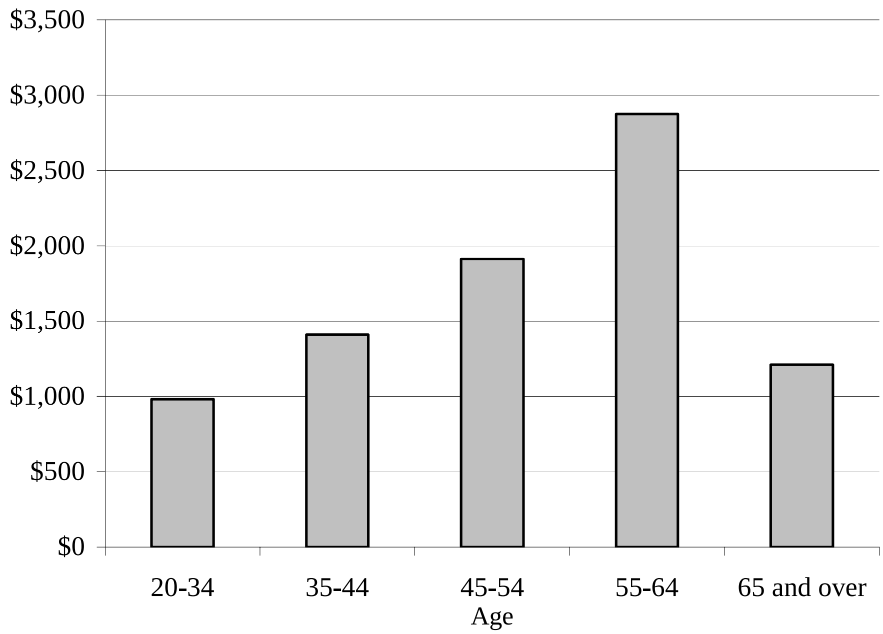
Source: U.S. Census Bureau (1996 and 2002).

Figure 14. *Share of the Elderly with Chronic Disabilities*



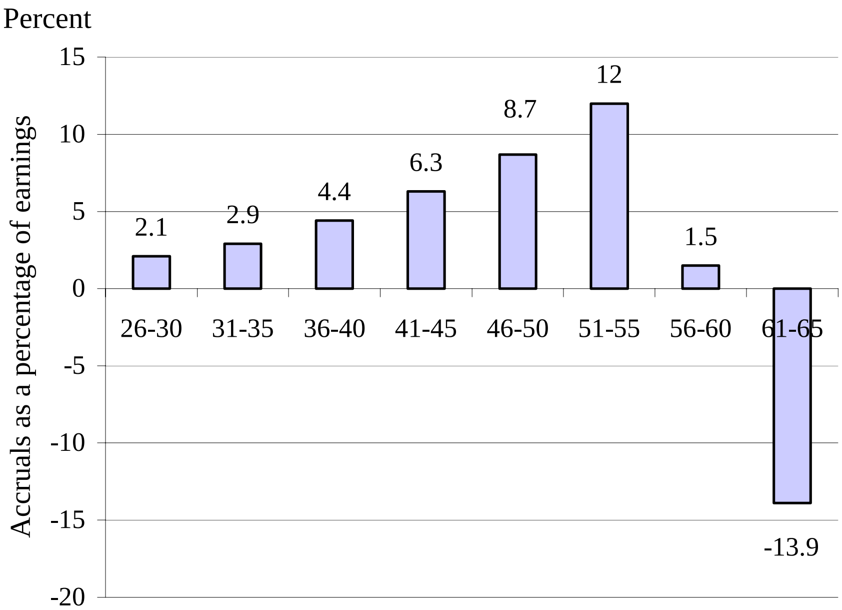
Source: Manton and Gu (2001).

Figure 15. *Per Worker Health Care Expenditures Paid by Private Insurance, 1998-2000 (2002 dollars)*



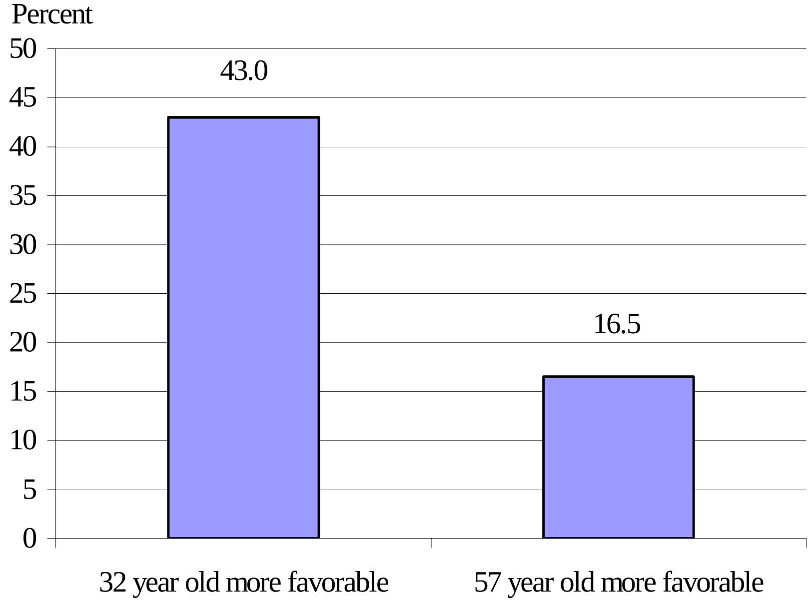
Source: Holahan (2004).

Figure 16. *Average Accruals in Private Defined Benefit Plans, for Workers Starting at Age 25*



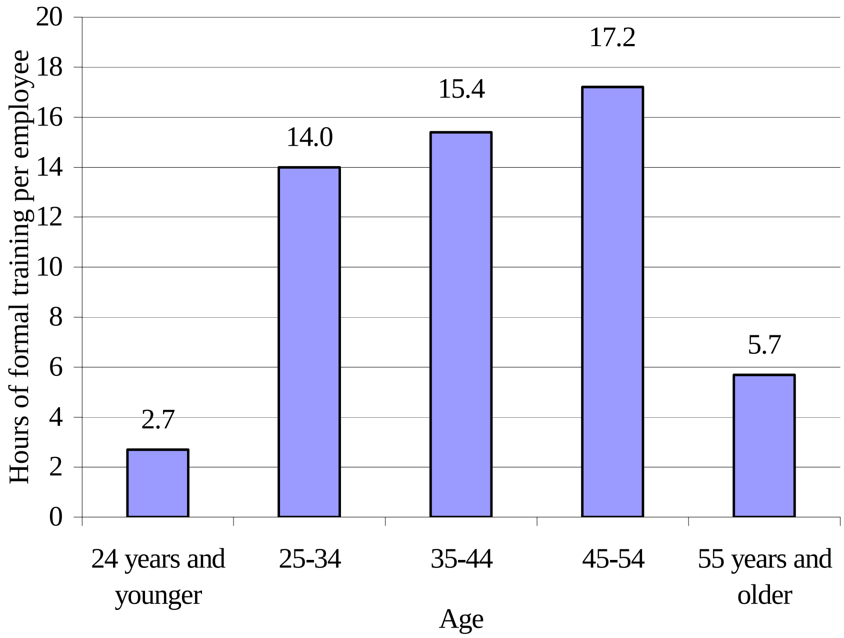
Source: Penner, Perun, and Eugene and Steuerle (2002).
Note: The analysis is based on a sample of 340 salary-based defined benefit plans in the private sector. Accrual estimates assume that workers join the firm at age 25 and leave at the age that maximizes the present discounted value of pension benefits (or age 70). The analysis assumes that wages grow at the average age-specific rate for college-educated male workers with defined benefit plans. The real interest rate is set at 3 percent and the inflation rate at 3.3 percent. Estimates are weighted by firm size.

Figure 17. *Percent with Favorable Employer Responses, by Age, to Paired Resumes*



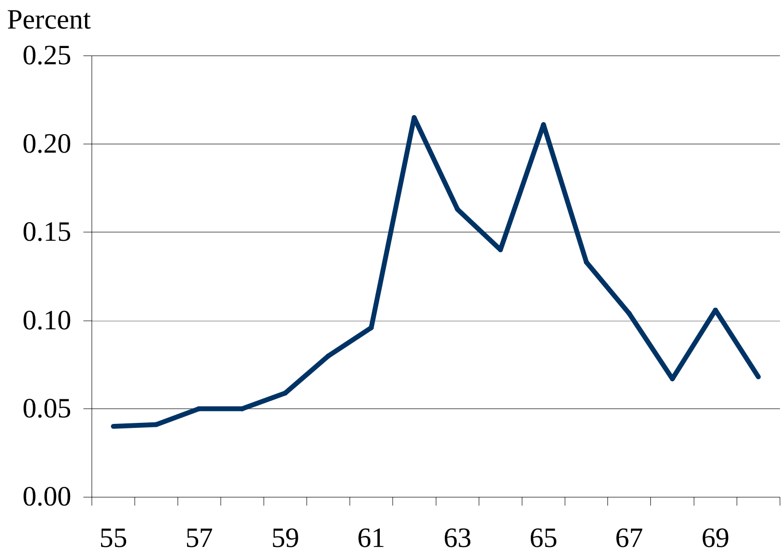
Source: Bendick, Jackson, and Romero (1996).

Figure 18. *Hours of Formal Training per Employee, by Age, May-October 1995*



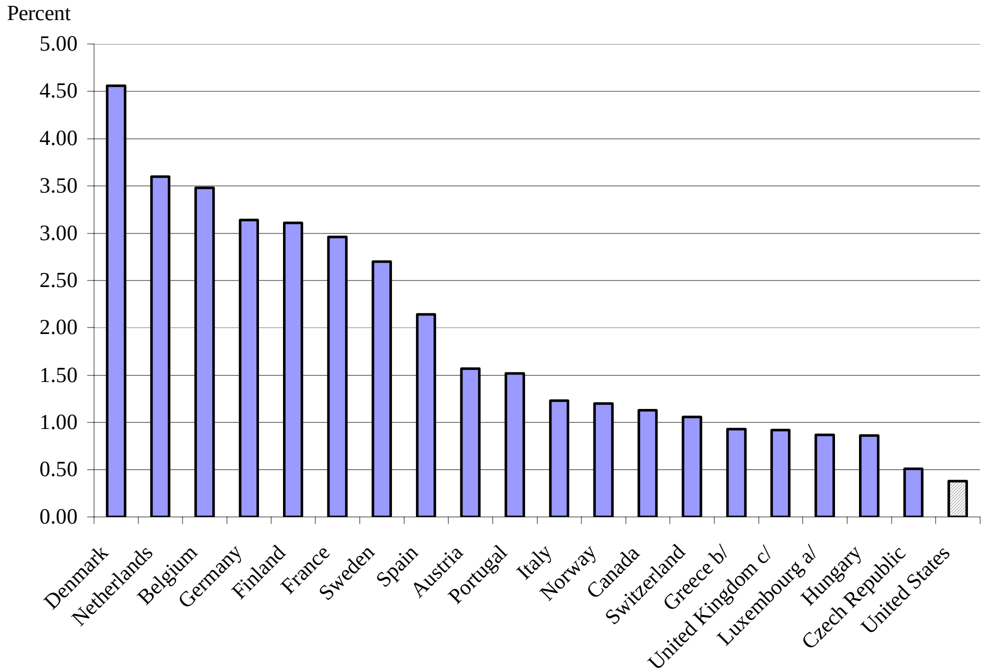
Source: Frazis, Gittleman, Horrigan, and Joyce (1998).

Figure 19. *The Percent of Working People Who Retire at a Given Age (Hazard Rate), 1992-2002*



Source: University of Michigan (1992-2002) and author’s calculations.

Figure 20. *Public Expenditure on Labor Market Programs as a Percent of GDP, 2001*



Source: United Nations Economic Commission for Europe (2003).

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